

Appendix F
Format for Submittal of Fleet Average Information

The format on the following pages contains the information required to be submitted by a Participating Railroad in its annual fleet average compliance report.

South Coast Locomotive Fleet Average Emissions Program

ANNUAL COMPLIANCE REPORT

FOR

CALENDAR YEAR

**Submitted by a Participating Railroad
to the
California Air Resources Board
in Accordance with the
Memorandum of Mutual Understandings and Agreements
Dated
July 2, 1998**

Participating Railroad: _____

Date Submitted: _____

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Certification by Participating Railroad

**Insert certification required by Paragraph IV.B.6 of
Memorandum of Mutual Understandings and Agreements**

Form F-S

Summary Information

I.	If the Participating Railroad is filing this report only to document FAC from ULELs created in a year prior to 2010, please check here and go directly to Section D.	_____
II.	If the Participating Railroad is filing this report to document its fleet average for a year prior to 2010 in order to create FAC, please check here. Go directly to Section A and, if applicable, Section D.	_____
III.	If the Participating Railroad is filing this report for the year 2010 or later in order to demonstrate whether it is in compliance with its annual obligation under paragraph III.A.1 of the Memorandum of Mutual Understandings and Agreements (Memorandum), check A, B, or C below to indicate which method is being used to demonstrate compliance.	
A.	Calculation of Final FA, beginning with the formula for calculating FA in paragraph III.B.1 of the Memorandum	_____
B.	Exclusive Use of locomotives with CLs at or below the Fleet Average Target, as defined in Section II of the Memorandum	_____
C.	Calculation of Final FA, beginning with the formula for calculating FA in paragraph III.B.3 of the Memorandum	_____

	If III.A is checked above, complete Section A below and, if applicable, Section D.
	If III.B is checked above, complete Section B below and, if applicable, Section D.
	If III.C is checked above, complete Section C below and, if applicable, Section D.

SECTION A

Calculation of Fleet Average Using Megawatt-Hours/Gallons of Fuel

(Contains Forms F-A-1 through F-A-6)

Form F-A-1

Calculation of FA in Accordance with Paragraph III.B.1 of Memorandum

- I. Using all available data, complete this Part I and include each locomotive operated by the Participating Railroad in the South Coast Nonattainment Area during the year. Use additional pages as needed. See the notes to this Form F-A-1 for additional instructions. If the data on this schedule represent less than 90% of the Participating Railroad's locomotives operated in the South Coast Nonattainment Area during the year, also complete Part II below. Otherwise, go to Part III.

(1) Line No.	(2) Locomotive ID No. [Note 1]	(3) CL (g/bhphr)	(4) Adj. to CL (g/bhphr) [Note 2]	(5)=(3)-(4) EL (g/bhphr)	(6) MWhr (or Gal. of Fuel) [Note 3]	(7)=(5)x(6) EL x MWhr
1						
2						
3						
etc.						

Total of Columns 6 and 7 - Part I	=====	=====
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Form F-A-1
(continued)

Calculation of FA in Accordance with Paragraph III.B.1 of Memorandum

- II. Complete this Part II only if the data in Part I represent less than 90% of the Participating Railroad's locomotives operated in the South Coast Nonattainment Area during the year (see paragraph III.E.2 of the Memorandum). Information provided in this Part II should be estimated data for enough missing locomotives so that the combination of data in Parts I and II represents at least 90% of the Participating Railroad's locomotives operated in the South Coast Nonattainment Area during the year. Estimations should be based on data for locomotives operated on similar trains within the South Coast Nonattainment Area, and should be explained on Form F-A-5.

(1) Line No.	(2) Estimated Locomotive [Note 1]	(3) CL (g/bhphr)	(4) Adj. to CL (g/bhphr) [Note 2]	(5)=(3)-(4) EL (g/bhphr)	(6) Est. MWhr (or Gal. of Fuel) [Note 3]	(7)=(5)x(6) EL x MWhr
1	1					
2	2					
3	3					
etc.	etc.					

Total of Columns 6 and 7 - Part II	=====	=====
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Form F-A-1
(continued)

Calculation of FA in Accordance with Paragraph III.B.1 of Memorandum

III. Complete this Part III to calculate FA.

		(1) MWhr (or Gal. <u>of Fuel</u>)	(2) <u>EL x MWhr</u>	
A.	Totals from Columns 6 and 7 - Part I	_____	_____	
B.	Totals from Columns 6 and 7 - Part II	_____	_____	
C.	Sum of Lines A and B	=====	=====	
D.	FA in g/bhphr (Line C, Column 2 divided by Line C, Column 1)			=====

Form F-A-1
(continued)

Calculation of FA in Accordance with Paragraph III.B.1 of Memorandum

Notes to Form F-A-1

- [1] If two or more nominal locomotives are used for one particular physical locomotive, add letters (e.g., A, B) to the physical locomotive's ID No. to identify the nominal locomotives. See paragraphs III.B.1 and III.C.4 of the Memorandum for additional information.
- [2] Any adjustment to CL should be made in accordance with paragraphs III.C.1 and III.C.3 of the Memorandum. If an adjustment is made to any CL, complete Part I of Form F-A-3.

Note: The phrase "Adjustment to CL" is used throughout this Appendix F to mean an adjustment to EL_i in accordance with paragraphs III.C.1 and III.C.3 of the Memorandum.

- [3] Entries in this column 6 should either be entirely expressed in megawatt-hours or entirely in gallons of fuel. To convert one measure to the other, see Appendix B of the Memorandum. If any conversions are made, complete Form F-A-4.

Proceed to Form F-A-2.

Form F-A-2

Calculation of Final FA in Accordance with Subsection III.D of Memorandum

Complete this form to calculate Final FA. All entries should be expressed in g/bhphr.

A.	Enter the value shown on Line D of Part III of Form F-A-1.	_____
B.	Enter the total of all adjustments made to FA in accordance with paragraph III.D.1 of the Memorandum. If any adjustment is made to FA, complete Part II of Form F-A-3.	_____
C.	Calculate Adjusted FA (Line A - Line B)	_____
D.	If Line C is less than or equal to Fleet Average Target, or if this report is for a year prior to 2010, enter zero. Otherwise, enter any correction made to account for atmospheric conditions in accordance with paragraph III.D.2 of the Memorandum. Do not enter more than the difference between Line C and Fleet Average Target. If a correction is made to account for atmospheric conditions, complete Part III of Form F-A-3.	_____
E.	Calculate Adjusted/Corrected FA (Line C - Line D); round to nearest 0.1 g/bhphr (see Appendix C of Memorandum)	_____
F.	If Line E is less than or equal to Fleet Average Target, or if this report is for a year prior to 2010, enter zero. Otherwise, enter any available emission reductions from Line E of Part I of Form F-A-6 and/or Part II of Form F-A-6 which the Participating Railroad wishes to deduct from Line E in accordance with paragraph III.D.3 of the Memorandum. Do not enter more than the difference between Line E and Fleet Average Target.	_____
G.	Calculate Final FA in g/bhphr (Line E - Line F)	=====

Note: Line G must be less than or equal to Fleet Average Target for the Participating Railroad to be in compliance.

Proceed to Forms F-A-3 through F-A-5, if applicable. Otherwise, complete Form F-A-6.

Form F-A-3

Adjustments to CL,
Adjustments to FA,
and
Correction to FA

I. Adjustments to CL

For each locomotive whose CL was adjusted in column 4 of either Part I or Part II of Form F-A-1, complete the following information. Use additional pages as needed.

Locomotive ID No. or Estimated Locomotive No.:	_____
A. Adjustment to CL shown on Form F-A-1 (g/bhphr)	_____
B. Has Adjustment to CL been accepted previously by California Air Resources Board (ARB) in accordance with the terms of Appendix D of the Memorandum?	_____
C. If Line B is Yes, enter date. If Line B is No, go to Line F.	_____
D. Has locomotive been remanufactured, as defined in the Final EPA National Locomotive Rule, since the date shown on Line C?	_____
E. If Line D is Yes, complete Line F. Otherwise, proceed to next locomotive.	
F. Explain below, in detail, the reasons for the Adjustment to CL and show how it was calculated. Attach all supporting data and evidence. This information will be used by ARB to determine whether to accept the Adjustment to CL. See paragraphs III.C.3, III.C.4, IV.C.4, IV.C.5 and Appendix D of the Memorandum.	

**Form F-A-3
(continued)**

**Adjustments to CL,
Adjustments to FA,
and
Correction to FA**

II. Adjustments to FA

For each Adjustment to FA made in accordance with paragraph III.D.1 of the Memorandum, and included on Line B of Form F-A-2, complete the following information. Use additional pages as needed.

<u>Adjustment to FA No.:</u> (Number each Adjustment, beginning with "1")	_____
A. How much of the total Adjustment to FA included on Line B of Form F-A-2 is attributable to this Adjustment to FA (in g/bhphr)?	_____
B. Has this Adjustment to FA been accepted previously by California Air Resources Board (ARB) in accordance with the terms of paragraph III.D.1 and Appendix D of the Memorandum?	_____
C. If Line B is Yes, enter date and proceed to next Adjustment.	_____
D. Explain below, in detail, the reasons for this Adjustment to FA and show how it was calculated. Attach all supporting data and evidence. This information will be used by ARB to determine whether to accept this Adjustment to FA. See paragraphs III.C.3, III.C.4, III.D.1, IV.C.4, IV.C.5 and Appendix D of the Memorandum.	

**Form F-A-3
(continued)**

**Adjustments to CL,
Adjustments to FA,
and
Correction to FA**

III. Correction to FA

If a Correction to FA for atmospheric conditions was made in accordance with paragraph III.D.2 of the Memorandum, and was included on Line D of Form F-A-2, complete the following information. Use additional pages as needed.

A.	Show the Correction to FA included on Form F-A-2 (in g/bhphr)	_____
B.	Has the methodology used for the Correction to FA been accepted previously by California Air Resources Board (ARB) in accordance with the terms of Appendix D of the Memorandum?	_____
C.	If Line B is Yes, enter date.	_____
D.	Show below, in detail, how the Correction to FA was calculated. Attach all supporting data and evidence. This information will be used by ARB to determine whether to accept the Correction to FA. If Line B is No, it will also be used to determine whether to accept the methodology. See paragraphs III.D.2 and Appendix D of the Memorandum.	

Form F-A-4

Factors to Convert between Gallons of Fuel and MWhr

For each locomotive whose Gallons of Fuel were converted to MWhr (or vice versa) in order to make an entry in column 6 of Part I or II of Form F-A-1, complete the following information. Use additional pages as needed.

<u>Locomotive ID No. or Estimated Locomotive ID No.:</u>	_____
A. Indicate whether original data for the locomotive were collected in gallons of fuel or MWhr.	_____
B. What conversion factor was used?	_____
C. Has the methodology used to develop the conversion factor been accepted previously by California Air Resources Board (ARB) in accordance with the terms of Appendix D of the Memorandum?	_____
D. If Line C is Yes, enter date.	_____
E. Show below, in detail, how the conversion factor was calculated. Attach all supporting data and evidence. This information will be used by ARB to determine whether to accept the conversion factor. If Line C is No, it will also be used to determine whether to accept the methodology. See paragraphs IV.C.4, IV.C.5 and Appendix B of the Memorandum.	

Form F-A-5

Estimation of Missing Locomotives

If it was not necessary to complete Part II of Form F-A-1, do not complete this form.

For each “Estimated Locomotive” shown in Part II of Form F-A-1, complete the following information. Use additional pages as needed.

Estimated Locomotive No. from Part II of Form F-A-1:	_____
A. What missing train would this Estimated Locomotive have powered?	_____
B. What similar train is being used as the benchmark for the missing train?	_____
C. What locomotive model powered the benchmark train, and is the basis for this Estimated Locomotive?	_____
D. Are the data shown in columns 3-6 of Part II of Form F-A-1 consistent with the answers to A, B, and C?	_____

Form F-A-6

FAC and Other Emissions Reductions

I. Summary of FAC Transactions (in g/bhphr)

	(1) Created <u>Pre-2010</u>	(2) Created <u>Post-2009</u>	(3) <u>Total</u>
A. Ending FAC balance -- last annual report	_____	_____	_____
B. FAC acquired from Other Participating Railroad since last annual report, if any	_____	_____	_____
C. FAC created from ULELs during the year, if any (Line F of Form F-D-2)	_____	_____	_____
D. FAC transferred to Other Participating Railroad or others since last annual report, if any	_____	_____	_____
E. Total FAC available for use in this annual report -- subject to restrictions on pre-2010 FAC noted in subparagraph III.D.3.a of Memorandum (Line A+Line B+Line C-Line D)	=====	=====	=====
F. FAC used in this annual report, if any (included in total emission reductions shown on Line F of Form F-A-2)	_____	_____	_____
G. FAC created during the year other than Line C, if any (Fleet Average Target [#] - Final FA shown on Line G of Form F-A-2, provided Fleet Average Target [#] exceeds Final FA)	_____	_____	_____
H. Ending FAC balance -- this annual report (Line E-Line F+Line G)	=====	=====	=====

**Form F-A-6
(continued)**

FAC and Other Emissions Reductions

Notes to Form F-A-6

For years 2005-2009, do not use Fleet Average Target. Instead, substitute (1-y) x 15.4 g/bhphr, as defined in paragraph III.F.2 of Memorandum.

Note: If an entry is shown on Line F, no entry can be shown on Line G (and vice versa).
Also, if an entry is shown in column 1 of Lines C or G, no entry can be shown in column 2 of Lines C or G (and vice versa).

Form F-A-6
(continued)

FAC and Other Emissions Reductions

II. Emission Reductions Other than FAC

List the amount of emissions reductions other than FAC, if any, shown on Line F of Form F-A-2 (in g/bhphr). In accordance with subparagraph III.D.3.a of the Memorandum, this amount cannot exceed 0.3 g/bhphr. In addition, the sum of (1) the amount shown here, and (2) the pre-2010 FAC included on Line F of Form F-A-2 (and shown on Line F, column 1 of Part I of this Form F-A-6) cannot exceed 1.3 g/bhphr.	_____
Attach documentation for the above emission reductions other than FAC, including a description of the reductions, how acquired, date acquired, and amount acquired. Note that subparagraph III.D.3.a and Appendix E of the Memorandum stipulate a fixed conversion rate from tons to g/bhphr.	_____

III. Reconciliation of Line F of Form F-A-2

A. Show amount from Line F, column 3 of Part I of this Form F-A-6	_____
B. Show amount from Part II of this Form F-A-6	_____
C. Line A + Line B (should equal Line F of Form F-A-2)	_____

SECTION B

Demonstration of Exclusive Use

(Contains Forms F-B-1 through F-B-2)

Form F-B-1

Demonstration of Exclusive Use in the South Coast Nonattainment Area of Locomotives with CLs at or Below the Fleet Average Target

- I. Using all available data, complete this Part I as instructed below. Include each locomotive operated by the Participating Railroad in the South Coast Nonattainment Area during the year. Use additional pages as needed. See the notes to this Form F-B-1 for additional instructions.
- A. If 100% of the locomotives operated in the South Coast Nonattainment Area during the year had CLs at or below the Fleet Average Target, complete columns 1-4 of the following schedule and proceed to Form F-B-2.
- B. If less than 100% of the locomotives operated in the South Coast Nonattainment Area during the year had CLs at or below the Fleet Average Target, but at least 99.9% of the Locomotive Days of Operation were generated by locomotives with CLs at or below the Fleet Average Target (see definitions in Section II of the Memorandum), complete columns 1-5 of the following schedule and proceed to Part II of this Form F-B-1.
- C. If neither I.A nor I.B above is true, the Participating Railroad's operations during the year do not satisfy the definition of Exclusive Use of locomotives with CLs at or below the Fleet Average Target. To demonstrate compliance, the Participating Railroad should complete either Section A or Section C of this report.

(1) Line No.	(2) Locomotive ID No. [Note 1]	(3) Year of Manufacture or Remanufacture	(4) CL (g/bhphr)	(5) Locomotive Days of Operation [Note 2]
1				
2				
3				
etc.				

Form F-B-1
(continued)

Demonstration of Exclusive Use in the South Coast Nonattainment Area
of Locomotives with CLs at or Below the Fleet Average Target

- II. Complete this Part II to calculate the percent of Locomotive Days of Operation represented by locomotives with CLs at or below the Fleet Average Target.

		<u>Sum of Locomotive Days of Operation for:</u>	
		(1) Locomotives with CLs at or <u>Below Fleet Average Target</u>	(2) All <u>Locomotives</u>
A.	Appropriate Entries from Column 5 - Part I	=====	=====
B.	Line A, Column 1 divided by Line A, Column 2	=====	

Line B must be greater than or equal to 0.999. If not, complete Section A or Section C of this report.

Form F-B-1
(continued)

Demonstration of Exclusive Use in the South Coast Nonattainment Area
of Locomotives with CLs at or Below the Fleet Average Target

Notes to Form F-B-1

- [1] If two or more nominal locomotives are used for one particular physical locomotive, add letters (e.g., A, B) to the physical locomotive's ID No. to identify the nominal locomotives. See paragraphs III.B.1 and III.C.4 of the Memorandum for additional information.
- [2] Locomotive Days of Operation should be calculated in accordance with the definition contained in Section II of the Memorandum.

Proceed to Form F-B-2.

Form F-B-2

FAC and Other Emissions Reductions

I. Summary of FAC Transactions (in g/bhphr)

	(1) Created <u>Pre-2010</u>	(2) Created <u>Post-2009</u>	(3) <u>Total</u>
A. Ending FAC balance -- last annual report	_____	_____	_____
B. FAC acquired from Other Participating Railroad since last annual report, if any	_____	_____	_____
C. FAC created from ULELs during the year, if any (Line F of Form F-D-2)	_____	_____	_____
D. FAC transferred to Other Participating Railroad or others since last annual report, if any	_____	_____	_____
E. Ending FAC balance -- this annual report (Line A+Line B+Line C-Line D)	=====	=====	=====

Note: FAC (other than FAC from ULELs) cannot be created if compliance is demonstrated using Section B of this report. FAC (other than FAC from ULELs) can be created only if Section A is used.

II. Emission Reductions Other than FAC

Not Applicable when method of compliance is exclusive use of locomotives with CLs at or below the Fleet Average Target.

SECTION C

Calculation of Fleet Average Using Locomotive Days of Operation

(Contains Forms F-C-1 through F-C-4)

Form F-C-1

Calculation of FA in Accordance with Paragraph III.B.3 of Memorandum

- I. Using all available data, complete this Part I and include each locomotive operated by the Participating Railroad in the South Coast Nonattainment Area during the year. Use additional pages as needed. See the notes to this Form F-C-1 for additional instructions. When completed, go to Part II.

[illegible]

Total of Columns 9 and 10 - Part I	<u> </u>	<u> </u>
------------------------------------	-------------------	-------------------

Form F-C-1
(continued)

Calculation of FA in Accordance with Paragraph III.B.3 of Memorandum

II. Complete this Part II to calculate FA.

	(1) Weighted Locomotive Days of <u>Operation</u>	(2) EL x Weighted Locomotive <u>Days of Operation</u>	
A. Totals from Columns 9 and 10 - Part I	<u> </u>	<u> </u>	
B. FA in g/bhphr (Line A, Column 2 divided by Line A, Column 1)			<u> </u>

**Form F-C-1
(continued)**

Calculation of FA in Accordance with Paragraph III.B.3 of Memorandum

Notes to Form F-C-1

[1] If two or more nominal locomotives are used for one particular physical locomotive, add letters (e.g., A, B) to the physical locomotive's ID No. to identify the nominal locomotives. See paragraphs III.B.1 and III.C.4 of the Memorandum for additional information.

[2] Any adjustment to CL should be made in accordance with paragraphs III.C.1 and III.C.3 of the Memorandum. If an adjustment is made to any CL, complete Part I of Form F-C-3.

Note: The phrase "Adjustment to CL" is used throughout this Appendix F to mean an adjustment to EL_i in accordance with paragraphs III.C.1 and III.C.3 of the Memorandum.

[3] Locomotive Days of Operation should be calculated in accordance with the definition contained in Section II of the Memorandum.

[4] Weighting Factor is determined as follows:

If Locomotive Horsepower is less than 2,000:	Factor = 1
If Locomotive Horsepower is 2,000 through 2,999:	Factor = 2
If Locomotive Horsepower is 3,000 or more:	Factor = 5

Proceed to Form F-C-2.

Form F-C-2

Calculation of Final FA in Accordance with Subsection III.D of Memorandum

Complete this form to calculate Final FA. All entries should be expressed in g/bhphr.

A.	Enter the value shown on Line B of Part II of Form F-C-1.	_____
B.	Enter the total of all adjustments made to FA in accordance with paragraph III.D.1 of the Memorandum. If any adjustment is made to FA, complete Part II of Form F-C-3.	_____
C.	Calculate Adjusted FA (Line A - Line B)	_____
D.	If Line C is less than or equal to Fleet Average Target, enter zero. Otherwise, enter any correction made to account for atmospheric conditions in accordance with paragraph III.D.2 of the Memorandum. Do not enter more than the difference between Line C and Fleet Average Target. If a correction is made to account for atmospheric conditions, complete Part III of Form F-C-3.	_____
E.	Calculate Adjusted/Corrected FA (Line C - Line D); round to nearest 0.1 g/bhphr (see Appendix C of Memorandum)	_____
F.	If Line E is less than or equal to Fleet Average Target, enter zero. Otherwise, enter any available emission reductions from Line E of Part I of Form F-C-4 and/or Part II of Form F-C-4 which the Participating Railroad wishes to deduct from Line E in accordance with paragraph III.D.3 of the Memorandum. Do not enter more than the difference between Line E and Fleet Average Target.	_____
G.	Calculate Final FA in g/bhphr (Line E - Line F)	=====

Note: Line G must be less than or equal to Fleet Average Target for the Participating Railroad to be in compliance.

Proceed to Form F-C-3, if applicable. Otherwise, complete Form F-C-4.

Form F-C-3

Adjustments to CL,
Adjustments to FA,
and
Correction to FA

I. Adjustments to CL

For each locomotive whose CL was adjusted in column 5 of Part I of Form F-C-1, complete the following information. Use additional pages as needed.

Locomotive ID No. or Estimated Locomotive No.:	_____
A. Adjustment to CL shown on Form F-C-1 (g/bhphr)	_____
B. Has Adjustment to CL been accepted previously by California Air Resources Board (ARB) in accordance with the terms of Appendix D of the Memorandum?	_____
C. If Line B is Yes, enter date. If Line B is No, go to Line F.	_____
D. Has locomotive been remanufactured, as defined in the Final EPA National Locomotive Rule, since the date shown on Line C?	_____
E. If Line D is Yes, complete Line F. Otherwise, proceed to next locomotive.	_____
F. Explain below, in detail, the reasons for the Adjustment to CL and show how it was calculated. Attach all supporting data and evidence. This information will be used by ARB to determine whether to accept the Adjustment to CL. See paragraphs III.C.3, III.C.4, IV.C.4, IV.C.5 and Appendix D of the Memorandum.	

**Form F-C-3
(continued)**

**Adjustments to CL,
Adjustments to FA,
and
Correction to FA**

II. Adjustments to FA

For each Adjustment to FA made in accordance with paragraph III.D.1 of the Memorandum, and included on Line B of Form F-C-2, complete the following information. Use additional pages as needed.

<u>Adjustment to FA No.:</u> (Number each Adjustment, beginning with "1")	_____
A. How much of the total Adjustment to FA included on Line B of Form F-C-2 is attributable to this Adjustment to FA (in g/bhphr)?	_____
B. Has this Adjustment to FA been accepted previously by California Air Resources Board (ARB) in accordance with the terms of paragraph III.D.1 and Appendix D of the Memorandum?	_____
C. If Line B is Yes, enter date and proceed to next Adjustment.	_____
D. Explain below, in detail, the reasons for this Adjustment to FA and show how it was calculated. Attach all supporting data and evidence. This information will be used by ARB to determine whether to accept this Adjustment to FA. See paragraphs III.C.3, III.C.4, III.D.1, IV.C.4, IV.C.5 and Appendix D of the Memorandum.	_____

**Form F-C-3
(continued)**

**Adjustments to CL,
Adjustments to FA,
and
Correction to FA**

III. Correction to FA

If a Correction to FA for atmospheric conditions was made in accordance with paragraph III.D.2 of the Memorandum, and was included on Line D of Form F-C-2, complete the following information. Use additional pages as needed.

A.	Show the Correction to FA included on Form F-C-2 (in g/bhphr)	_____
B.	Has the methodology used for the Correction to FA been accepted previously by California Air Resources Board (ARB) in accordance with the terms of Appendix D of the Memorandum?	_____
C.	If Line B is Yes, enter date	_____
D.	Show below, in detail, how the Correction to FA was calculated. Attach all supporting data and evidence. This information will be used by ARB to determine whether to accept the Correction to FA. If Line B is No, it will also be used to determine whether to accept the methodology. See paragraphs III.D.2 and Appendix D of the Memorandum.	

Form F-C-4

FAC and Other Emissions Reductions

I. Summary of FAC Transactions (in g/bhphr)

	(1) Created <u>Pre-2010</u>	(2) Created <u>Post-2009</u>	(3) <u>Total</u>
A. Ending FAC balance -- last annual report	_____	_____	_____
B. FAC acquired from Other Participating Railroad since last annual report, if any	_____	_____	_____
C. FAC created from ULELs during the year, if any (Line F of Form F-D-2)	_____	_____	_____
D. FAC transferred to Other Participating Railroad or others since last annual report, if any	_____	_____	_____
E. Total FAC available for use in this annual report -- subject to restrictions on pre-2010 FAC noted in subparagraph III.D.3.a of Memorandum (Line A+Line B+Line C-Line D)	=====	=====	=====
F. FAC used in this annual report, if any (included in total emission reductions shown on Line F of Form F-C-2)	_____	_____	_____
G. Ending FAC balance -- this annual report (Line E-Line F)	=====	=====	=====

Note: FAC (other than FAC from ULELs) cannot be created if compliance is demonstrated using Section C of this report. FAC (other than FAC from ULELs) can be created only if Section A is used.

If an entry is shown in column 1 of Line C, no entry can be shown in column 2 of Line C (and vice versa).

Form F-C-4
(continued)

FAC and Other Emissions Reductions

II. Emission Reductions Other than FAC

List the amount of emissions reductions other than FAC, if any, shown on Line F of Form F-C-2 (in g/bhphr). In accordance with subparagraph III.D.3.a of the Memorandum, this amount cannot exceed 0.3 g/bhphr. In addition, the sum of (1) the amount shown here, and (2) the pre-2010 FAC included on Line F of Form F-C-2 (and shown on Line F, column 1 of Part I of this Form F-C-4) cannot exceed 1.3 g/bhphr.	_____
Attach documentation for the above emission reductions other than FAC, including a description of the reductions, how acquired, date acquired, and amount acquired. Note that subparagraph III.D.3.a and Appendix E of the Memorandum stipulate a fixed conversion rate from tons to g/bhphr.	

III. Reconciliation of Line F of Form F-C-2

A. Show amount from Line F, column 3 of Part I of this Form F-C-4	_____
B. Show amount from Part II of this Form F-C-4	_____
C. Line A + Line B (should equal Line F of Form F-C-2)	_____

SECTION D
FAC from ULELs

(Contains Forms F-D-1 through F-D-4)

Form F-D-1

Calculation of Weighted Average Emission Level of ULELs

If this report is being submitted for a calendar year after 2014, do not complete Section D. The Participating Railroad is not eligible for FAC from ULELs.

- I. Using all available data, complete this Part I and include each ULEL operated by the Participating Railroad in the South Coast Nonattainment Area during the year. Use additional pages as needed. See the notes to this Form F-D-1 for additional instructions and the definition of ULEL. When completed, go to Part II.

[illegible]

Total of Columns 7, 9, and 10 - Part I	=====		=====	=====
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Form F-D-1
(continued)

Calculation of Weighted Average Emission Level of ULELs

II. Complete this Part II to calculate the weighted average emission level of ULELs.

	(1) Weighted Locomotive Days of <u>Operation</u>	(2) EL x Weighted Locomotive <u>Days of Operation</u>	
A. Totals from Columns 9 and 10 - Part I	<u> </u>	<u> </u>	
B. Preliminary Weighted Average Emission Level of ULELs in g/bhphr (Line A, Column 2 divided by Line A, Column 1)			<u> </u>
C. Adjustments [Note 6]			<u> </u>
D. Weighted Average Emission Level of ULELs (Line B-Line C)			<u> </u>

**Form F-D-1
(continued)**

Calculation of Weighted Average Emission Level of ULELs

Notes to Form F-D-1

- [1] If two or more nominal locomotives are used for one particular physical locomotive, show only the nominal locomotives that qualify as ULELs. If necessary, add letters (e.g., A, B) to the physical locomotive's ID No. to identify the nominal locomotives. See paragraphs III.B.1 and III.C.4 of the Memorandum for additional information.
- [2] Any adjustment to CL should be made in accordance with paragraphs III.C.1 and III.C.3 of the Memorandum. If an adjustment is made to any CL, complete Part I of Form F-D-3 unless Part I of Form F-A-3 or Part I of Form F-C-3 is completed.
- Note: The phrase "Adjustment to CL" is used throughout this Appendix F to mean an adjustment to EL_i in accordance with paragraphs III.C.1 and III.C.3 of the Memorandum.
- [3] To comply with the definition of ULEL, all entries in column 6 must be:
- Less than or equal to 4 g/bhphr if this form is being submitted for a calendar year from 2002 through 2011, or
 - Less than 3 g/bhphr if this form is being submitted for a calendar year from 2012 through 2014.
- [4] Locomotive Days of Operation should be calculated in accordance with the definition contained in Section II of the Memorandum.
- [5] Weighting Factor is determined as follows:
- | | |
|--|------------|
| If Locomotive Horsepower is less than 2,000: | Factor = 1 |
| If Locomotive Horsepower is 2,000 through 2,999: | Factor = 2 |
| If Locomotive Horsepower is 3,000 or more: | Factor = 5 |
- [6] If the Participating Railroad believes that one or more adjustments to the preliminary weighted average emission level of ULELs are appropriate in a manner similar to the Adjustments to FA permitted in accordance with paragraph III.D.1 of the Memorandum, show the total of such adjustments and complete Part II of Form F-D-3.

Proceed to Form F-D-2.

Form F-D-2

Calculation of FAC from ULELs

Calculation of FAC from ULELs:

A.	Weighted average emission level of ULELs (Line D of Part II of Form F-D-1)	_____
B.	Maximum FAC from ULELs (Fleet Average Target - Line A)	_____
C.	Multiply Line B by the total of Column 7 from Part I of Form F-D-1	_____
D.	If Line A is greater than or equal to 3 g/bhphr, multiply Line A by 30,000 and subtract 70,500. If Line A is less than 3 g/bhphr, multiply Line A by 2,500 and add 12,000.	_____
E.	Divide Line C by Line D	_____
F.	FAC from ULELs in g/bhphr (the smaller of Line B or Line E; round to nearest 0.1 g/bhphr)	=====

Proceed to Forms F-D-3 and F-D-4, if applicable.

Form F-D-3

Adjustments to CL **and** **Adjustments to Preliminary Weighted Average Emission Level of ULELs**

I. Adjustments to CL

Do not complete this Part I if Part I of Form F-A-3 or Part I of Form F-C-3 is completed.

For each ULEL whose CL was adjusted in column 5 of Part I of Form F-D-1, complete the following information. Use additional pages as needed.

ULEL ID No.:	_____
A. Adjustment to CL shown on Form F-D-1 (g/bhphr)	_____
B. Has Adjustment to CL been accepted previously by California Air Resources Board (ARB) in accordance with the terms of Appendix D of the Memorandum?	_____
C. If Line B is Yes, enter date. If Line B is No, go to Line F.	_____
D. Has locomotive been remanufactured, as defined in the Final EPA National Locomotive Rule, since the date shown on Line C?	_____
E. If Line D is Yes, complete Line F. Otherwise, proceed to next locomotive.	
F. Explain below, in detail, the reasons for the Adjustment to CL and show how it was calculated. Attach all supporting data and evidence. This information will be used by ARB to determine whether to accept the Adjustment to CL. See paragraphs III.C.3, III.C.4, IV.C.4, IV.C.5 and Appendix D of the Memorandum	

**Form F-D-3
(continued)**

**Adjustments to CL
and
Adjustments to Preliminary Weighted Average Emission Level of ULELs**

II. Adjustments to Preliminary Weighted Average Emission Level of ULELs

For each Adjustment to the Preliminary Weighted Average Emission Level of ULELs made in accordance with paragraph III.D.1 of the Memorandum, and included on Line C of Part II of Form F-D-1, complete the following information. Use additional pages as needed.

<u>Adjustment No.:</u> (Number each Adjustment, beginning with "1")	_____
A. How much of the total Adjustment included on Line C of Part II of Form F-D-1 is attributable to this Adjustment (in g/bhphr)?	_____
B. Has this Adjustment been accepted previously by California Air Resources Board (ARB) in accordance with the terms of paragraph III.D.1 and Appendix D of the Memorandum?	_____
C. If Line B is Yes, enter date and proceed to next Adjustment.	_____
D. Explain below, in detail, the reasons for this Adjustment and show how it was calculated. Attach all supporting data and evidence. This information will be used by ARB to determine whether to accept this Adjustment. See paragraphs III.C.3, III.C.4, III.D.1, IV.C.4, IV.C.5 and Appendix D of the Memorandum.	

Form F-D-4

FAC Balance For Years Before 2010 in Which Fleet Average is Not Determined

If Section A, Section B, or Section C is completed, do not complete this form. Instead, complete Form F-A-6, Form F-B-2, or Form F-C-4, respectively.

I. Summary of FAC Transactions (in g/bhphr)

	(1) Created <u>Pre-2010</u>
A. Ending FAC balance -- last annual report	_____
B. FAC acquired from Other Participating Railroad since last annual report, if any	_____
C. FAC created from ULELs during the year, if any (Line F of Form F-D-2)	_____
D. FAC transferred to Other Participating Railroad or others since last annual report, if any	_____
E. Ending FAC balance -- this annual report (Line A+Line B+Line C-Line D)	=====